

REMARKS

Claims 1-8, 12-14, and 21-30 are pending in the application, with claims 1 and 12 being independent claims. Of the pending claim, claims 12, 13, and 27-30 are under consideration, and claims 1-8, 14, and 21-26 are withdrawn from consideration.

Response to Restriction Requirement

The restriction requirement has been maintained, and the requirement has been made final.

In response, Applicants respectfully request reconsideration of the requirement, and rejoinder of the nonelected claims upon allowance of the elected claims.

Response to Rejections under 35 U.S.C. § 103(a)

Claims 12, 13, and 27-30 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Farghaly et al. (Alexandria J. of Pharm. Sci., 1990, Vol. 4, pp. 52-56), hereafter “FARGHALY”, in view of:

- Hadjipavlou-Litina (Curr. Med. Chem., 2000, Vol. 7, pp. 375-388), hereinafter “HADJIPAVLOU”;
- Bonola et al. (J. Med. Chem., 1970, Vol. 13, pp. 329-332), hereinafter “BONOLA”;
- U.S. Patent 3,843,654 to Kirchner et al., hereinafter “KIRCHNER”; and

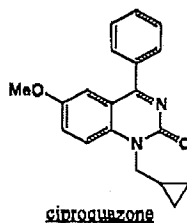
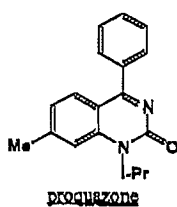
- Kurup et al. (Chem. Rev., 2001, Vol. 101, pp. 2727-2750), hereinafter “KURUP”.

The rejection asserts that FARGHALY differs from compound I of instant claims 12, 13, 27, and 28 by a substitution of a chlorine atom (or any halogen, hydroxyl or alkoxy) at the 5-position of the pyrazole ring. Based on the teaching of FARGHALY, the rejection concludes that it would be obvious in view of the teaching of HADJIPAVLOU and KURUP to modify by substitution the compound taught by FARGHALY. The rejection refers specifically to the teaching of QSAR (quantitative structure-activity relationship) in KURUP, asserting that KURUP discloses “halogen substitutions on pyrazole rings just as required to arrive at the instantly claimed invention.”

The rejection further admits that the compound of instant claims 29 and 30, in addition to the difference of the pyrazole ring substitution, requires a single bond instead of a double bond in the quinazolinone-ring structure, as compared with compounds VI of FARGHALY. The rejection asserts that this deficiency can be found in BORODY and KIRCHNER, both of which teach compounds having a quinazolinone-ring core structure with a single bond on the same position as the compound of instant claims 29 and 30.

Applicants respectfully traverse this rejection. Applicants respectfully submit that, as set forth below, compound I of the presently claimed invention differs from the compositions shown in FARGHALY, and HADJIPAVLOU, KURUP, BORODY, and KIRCHNER do not cure the deficiencies of FARGHALY, and the documents do not create a prima facie case of obviousness – considered alone or in combination..

With regard to HADJIPAVLOU, this reference discloses, next to many other compound types, the following two quinazoline compounds.

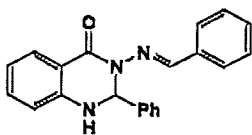


These compounds are clearly structurally different from the compounds of the present invention according to claim 12. Furthermore, HADJIPAVLOU does not report any studies of QSAR conducted on the disclosed quinazoline compounds. Therefore, the combined teachings of HADJIPAVLOU and FARGHALY do not lead to the presently claimed invention nor can there be found any motivation or suggestion in HADJIPAVLOU to modify the compounds disclosed in FARGHALY to arrive at the presently claimed compound.

With regard to KURUP, Applicants respectfully note that the Examiner is not correct in stating that "numerous other compounds with pyrazoles are explored with substitutions including halogens such as XXVI, XXXI, XXXII, XXXIV, XXXVI, etc." These compounds are not pyrazole derivatives but imidazole derivatives and therefore do not apply to the pyrazole-structure of the presently claimed invention. Furthermore, Applicants note that the Examiner refers to compounds VIII and XI, both of which have a quinazolinone core structure. However, compounds VIII and XI do not possess a pyrazole ring at the 3-position of the quinazolinone core, but instead a biphenylmethyl-group. Applicants also note that, in contrast to the Examiner's assertion, Table VIII does not show any example of halogen substitution of compound VIII. Moreover, KURUP is silent about the anti-inflammatory action of the discussed compounds. Accordingly, KURUP discloses the use of QSAR on structurally clearly different compounds and therefore cannot cure the deficiency of FARGHALY.

With regard to BONOLA, this reference discloses 2,3-dihydro-4(1H)-quinazolinone derivatives, wherein the 3-position is an aryl-substituted amino group or an alkyl-substituted amino group. BONOLA discloses 81 derivatives with different substitutions on the quinazolinone core structure, however does not characterize any specific properties of these derivatives. BONOLA only speculates that the disclosed compounds possess antipyretic, hypotensive, or CNS depressant activities. Since FARGHALY teaches compounds with anti-inflammatory action, someone of ordinary skill in the art would not be motivated to combine structure elements disclosed in BONOLA with the teachings of FAGHALY. Moreover, the combined teachings of BONOLA, FAGHALY, and KURUP, or HADJIPAVLOU do not lead to the presently claimed invention.

The Examiner refers to KIRCHNER as teaching “a genus of compounds as pharmaceuticals with a more similar core to the instant invention” than BONOLA, alleging that KIRCHNER would provide additional motivation to modify the above-discussed double bond into a single bond. In response, Applicants note that KIRCHNER discloses compounds with sedative action. Therefore, someone of ordinary skill in the art in search for an improved structure of an anti-inflammatory agent would not be motivated to consider the structures shown in KIRCHNER. Moreover, the compound cited by the Examiner, i.e., 2-phenyl-2,3-dihydro-3-benzalimino-4(1H)-quinazolinone (shown below) is not proved to have any pharmacological action by KIRCHNER.




Applicants submit that for at least all of the foregoing reasons, the rejection of claims 12, 13, and 27-30 under 35 U.S.C. § 103(a) over FARGHALY in view of HADJIPAVLOU, KURUP, BONALA, and KIRCHNER is unwarranted, wherefore withdrawal of the rejections is respectfully requested.

CONCLUSION

In view of the foregoing, it is believed that all the claims in this application are in condition for allowance, which action is respectfully requested. If any issues yet remain which can be resolved by a telephone conference, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully Submitted,
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